

ABOUT RIGHT WHALE RESEARCH

Northern Right Whales

Northern right whales (*Eubalaena glacialis*) were listed as endangered throughout their range in 1970 under the Endangered Species Conservation Act. They were subsequently listed as endangered under the Endangered Species Act (ESA) in 1973. The northern right whale population has been divided into eastern North Pacific and western North Atlantic stocks, which are geographically isolated.

Study Area for the Analysis of Research on Northern Right Whales in the North Atlantic and North Pacific Oceans



The population of northern right whales in the North Atlantic is estimated at 300 individuals.



A current reliable estimate of the number of animals in the North Pacific is not available.

Research Categories for the Analysis of Research on Northern Right Whales

Scientists who conduct research on North Atlantic and North Pacific right whales use a variety of methods. The general description for each of these research categories is as follows:

- **Approach and observation** - the use of vessels or aerial platforms to closely approach animals. These activities usually include taking photographs to identify individual animals and recording observed behaviors. Passive acoustics may also be utilized to study social interactions.
- **Sampling** - the collection and use of tissue, skin, and fecal samples as well as ultrasound testing. Areas examined include genetics, hormone levels, diet and foraging, contaminant loads, and overall health of individual animals.
- **Tagging** - the attachment of devices to an animal. Although tags may record a variety of data (e.g., location, dive cycle, vocalizations), there are two basic methods of attachment: suction cup and implantable.
- **Population monitoring and assessment** - vessel and aerial surveys to investigate population status (i.e., abundance, distribution) and determine trends over time.
- **Acoustic playback/controlled exposure experiments (CCEs)** - the introduction of natural and manmade noises into the marine environment to examine the animals' reactions.
- **Disentanglement response** - to attempt to free an animal from entanglement. Includes the use of buoys and telemetry devices to track the animal before and after release.

General strategies for minimizing potential environmental impacts will be provided in the *Management Requirements and Mitigations* chapter of the EIS. The appropriate mitigation measures for each research category will also be detailed in a manual proposed by NMFS: *Best Management Practices on Procedures and Techniques to Conduct Field Research on Northern Right Whales in the North Atlantic and North Pacific Oceans*.



Photo: MMC

Research and Recovery Needs Identified by the National Marine Fisheries Service (NMFS):

- Detection studies
- Contaminant studies
- Abundance and distribution monitoring
- Habitat use studies
- Reproduction and health studies
- Entanglement response

Current Research Conducted on Northern Right Whales:

- Aerial Surveys
- Vessel Surveys
- Photo-identification
- Behavioral Observation
- Genetic Sampling
 - Sloughed skin collection
 - Remote biopsy darting
- Ultrasound Blubber Measurements
- Tagging
- Passive/Active Acoustics
- Import/Export of Parts
- Stranding Response/Disentanglement



Photo: Folkens

Photo: M. Moore, WHOI

